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ABSTRACT

SPLIT SHANK ROTOR BLADE

A shroudless turbine rotor blade of the type having a platform damper interface, is provided with at least one slot which extends from the aerofoil side of a platform flow boundary to a point in the root. The slot extends between opposing flanks of the blade so as to divide the platform and partially divide the root. The segregated root is made more flexible by the slot which provides for greater platform vibratory amplitudes for a given length of root. The increased platform motion provides for improved dampability when the blade vibrates. The slot also provides a pair of confronting platform surfaces which are urged into mutual contact by centrifugal load acting on the blade to create an additional damping interface.

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